

We Claim:

1. A sealing apparatus, comprising:
a first part having a first surface configured to cooperate with a second surface of a second part;
a groove formed in the first surface;
a first o-ring, configured to seal a first fluid in a first region from a second fluid in a second region, while contained in the groove; and
a second o-ring in continuous contact with the first o-ring while contained in the groove.
2. An apparatus according to Claim 1, wherein the first surface is substantially flat except for the groove.
3. An apparatus according to Claim 1, wherein the o-rings are substantially circular in the azimuthal direction.
4. An apparatus according to Claim 1, wherein the o-rings comprise substantially circular cross-sections.
5. An apparatus according to Claim 1, wherein the o-rings are made from a material selected from the group consisting of fluorosilicone, nitrile, fluorocarbon, silicone, neoprene, and ethylene propylene.
6. An apparatus according to Claim 2, wherein the groove comprises a substantially dovetail shaped cross section.

7. An apparatus according to Claim 6, wherein, when the o-rings are secured by the groove, portions of the o-rings protrude above the first surface.

8. An apparatus according to Claim 1, further comprising a leak check port having a gas injection point.

9. An apparatus according to Claim 8, further comprising a gas supplying member connected to the gas injection point via the leak check port.

10. An apparatus according to Claim 8, wherein the gas injection point is interposed between the seals created by the first and second o-rings.

11. An apparatus according to Claim 8, wherein the gas injection point comprises a hole located in the base of the groove.

12. An apparatus according to Claim 8, wherein the gas injection point comprises a hole located in the mating surface of the second part.

13. A sealing apparatus, comprising:

a first part having a first surface configured to cooperate with a second surface of a second part;

a groove formed in the first surface;

an o-ring, configured to seal a first area between the first and second surfaces from a second area exterior to the first area, while contained in the groove; and

a grounding gasket, configured to electrically couple the first and second surfaces, while contained in the groove adjacent the o-ring.

14. An apparatus according to Claim 13, wherein the first part comprises conductive material.

15. An apparatus according to Claim 13, wherein the first surface is substantially flat except for the groove.

16. An apparatus according to Claim 13, wherein the o-ring is substantially circular in the azimuthal direction.

17. An apparatus according to Claim 13, wherein the o-ring comprises a substantially circular cross-section.

18. An apparatus according to Claim 13, wherein the o-ring is made from a material selected from the group consisting of fluorosilicone, nitrile, fluorocarbon, silicone, neoprene, and ethylene propylene.

19. An apparatus according to Claim 13, wherein the grounding gasket comprises a substantially circular cross section.

20. An apparatus according to Claim 13, wherein the grounding gasket comprises Spira Shield Quick Shield..

21. An apparatus according to Claim 13, wherein the groove comprises a substantially dovetail shaped cross section.

22. An apparatus according to Claim 13, wherein, when the o-ring and the grounding gasket are secured within the groove, portions of the o-ring and the grounding gasket protrude above the first surface.